

Convocation Address  
Peter McLean  
September 9, 2006

Thank you for letting me share with you. I'll try not to be long, although most assuredly, I'll be slow, and I am sorry; that's just the way this 50-year-old southerner thinks and speaks.

We celebrated my fiftieth a couple of weeks ago along the banks of the Hazel River, one which flows pure and sweet from the forests and mountains of Shenandoah National Park. Though somewhat affected by acid rain like most waterways in the East, the river runs well, full of granite boulders and pools and crayfish and other invertebrates which support a native brook trout population; the Hazel is one of the few rivers around that does so. We feel so lucky to be alongside it, to listen to its constant flow, soothing sounds from water sweeping over the moss-covered granite and into pools that we and the fish enjoy. And it's full of stories. One morning while watching, outfitted in my warm by ridiculous looking red knee socks, a pair of hummingbirds hovers around me, apparently attracted to the red and perhaps thinking they had found the ultimate nectar source to power them for their 600-mile migration across the Gulf of Mexico in a few weeks. The next day, a Pewee, a small flycatcher here just for the summer to breed then back to Costa Rica and points farther south, would swoop down from a white pine branch, somehow snag a gnat then resettle on the white pine, all within seconds. A quick back and forth swipe of the bill on the branch, then off again...down, back up, each time with a meal of gnat or some other small insect. Another morning, we watch a mass of swallowtail butterflies gather along the river's edge; at once, they flutter off, a diffuse cloud of yellow and black made brilliant by light reflected off the river. One seemed reluctant to move, and another floated in, making antenna contact. A few seconds pass, it floats off and the one remains still reluctant to move. The scenario repeats several times. What was going on? Altruism? Mating ritual? Was the one old or sick or simply resting? Ask Andrew, Jim, Lark, and Theo about this magical spot on the river for we camped together there a couple of springs ago.

And, in this tranquility, our families converged. First the Palas, Carol Ann's family, full of passion and energy as seems typical of Italians; Joe, Carol's dad, perhaps best displays these qualities. He loves to tease, especially his granddaughters, Elsa and Jamie; it's often for a smooch, for which they reluctantly give. This time, the smooch meant that their grandfather would leave the house and them alone and climb Mary's Rock, a nearby peak in the Park where 360 degree views extend nearly to D.C., 80 miles to the east and west 80 miles to the Allegheny Mountains and West Virginia. So up he went, with an energy and determination and sense of play that few 82-year-olds can claim; we were astounded. We saw black bear and their poop along the blueberry lined trail, and, at the top, we were in awe, of the view, of the absolute beauty, of his triumph in climbing those several miles up to such magnificence.

A week or so later, my family, mostly from Charlottesville, Asheville and Richmond came. On Friday, the day before my birthday, we hiked a splendid, dramatically beautiful mountain, Old Rag. It sits at just over 3,000 feet in the Park just east of the Appalachian Trail and Skyline Drive much as it has for 400 million years, although it was taller then, about like the Rockies today,

12,000 feet or more. Hikers from all over, especially D.C., come to traverse this challenging, boulder-laden peak. It takes much of the day to do so; my 4-year-old niece, Annie, led the way, and we marveled at her energy and determination. Near the top, where she and Elsa and Pete played in tunnels of eroded basalt and granite, we looked over the oaks, hickories, and beech and admired clear, long views of the patchwork of farms and fields below; our spirits soared. Whether keeping up with her or other family members, we felt so good up there, getting exercise in this very beautiful part of the world, and spending time with each other, an increasingly rare opportunity. As my brother Lee, a busy doctor in Asheville, would later share, it was one of the best days of his life; I couldn't have agreed more.

The next day, Peter and Elsa led us 20 minutes up Nicholson Hollow to a favorite swimming hole, one complete with a waterfall and a huge boulder from which we jumped into the cold, clear water. Following the lead of his children and Elsa and Pete, my brother, Andy, out of his banker clothes, jumped like a kid into the pool, then positioned himself under the waterfall, where the water pounded and massaged his shoulders and spit him out to the pool below. We felt such relief after our hot hike in...such refreshment of spirit, all of us together, enjoying simple, homegrown fun in this beautiful area.

Mom and Dad, both in their eighties, were with us as we celebrated that weekend. I was reminded how lucky we were to be with them. Although a strong will and heart remain, Dad has slowed a great deal from the days when he was a prominent practicing physician and businessman, chairman of the Charlottesville school board, a proud father of seven young children. Age has softened him, and he's now more vulnerable, more open. Several years ago, he and I and Lee, traveled to McBee, South Carolina, and it was there that Dad shared as never before, especially of his life, his early years among the pines and swales around McBee and Hartsville. There, the McLeans and other Scots first settled in the late 1700s hoping for opportunity in America after our revolution for independence. It's an area where some of Michel'le [Bennet's '09]'s ancestors settled too; I wonder if our ancestors ever crossed paths, and, if so, what was the nature of that crossing.

I share this with you all because where we were, and who we were with perhaps best describes what is most significant in our lives; that is, to appreciate what God has granted us...each other, and a beautiful and remarkable natural world...

So continue to sit and contemplate, perhaps as Esther Hsiao encouraged us to do...to appreciate the silence, to breathe slowly and deeply, to focus inwardly. For in so doing, appreciating yourself begins. For me, it best happens in front of a stream or ocean or fire, or after a long run or hike or from just being outdoors; I find such solace and truth there as nature has such integrity and beauty. For N.C. Wyeth, the master illustrator and creator of our mural and about whom I read this summer, it was walks in the moonlight above Chadd's Ford not far from here where he exclaimed, 'It was all magic for me and tremendously romantic.' So be still, and we'll do this for the next 20 minutes. Oh, what a brutal assignment...nearly impossible for some of us. We've got to move, we've got to go, we've got to do, we've got to get with friends, dress for practice, write a paper, get a better grade, get a better college, get better grades, go to grad school, make more money, accumulate more things...on the way to a rich and successful life. I wonder.

Instead, sit and contemplate. Try. Think about yourself and all that it takes to support you. We are of the earth, mostly six elements, carbon, hydrogen, nitrogen, oxygen, phosphorus, and sulfur. We're mostly hydrogen and oxygen that together make that remarkable liquid we call water. Our blood contains about the same percentage of salt as the ocean. Without the water and salt, we're proteins mostly, including ones that allow miracles like speeding the rate our blood captures CO<sub>2</sub> by almost a million times. Our bodies are concoctions that we struggle to decipher or replicate. Our brains, of which we use less than 10 percent, are far more powerful than any imagined computer.

How can anyone be bored by such contemplation, such realization, but take a trip if you must and consider where you sit. We are so lucky to share this magnificent building, full of valued energy and resources. You sit on nylon mesh, woven from oil, perhaps from Pennsylvania where it was first discovered over a hundred years ago or from Venezuela or the Middle East; what's there and what's that trip like? Nylon, a DuPont product, invented just up the Delaware River in 1935 by Wallace Carothers. What's his story? He died four years later at 36; I wonder why? The pigments come from dyes, perhaps plant dyes (ask Elizabeth McGiff) or more likely oil based ones; white ones likely contain titanium, typically from the beaches of Georgia and Florida. Nails are from the Mesabi Range or Japan. Zinc is from the ground in Canada, chrome comes from Rhodesia, and aluminum from [bauxite in] Jamaica. The foam, the cushy stuff, is oil based also. The wood where your arms rest is beautiful, deeply colored and richly grained, perhaps walnut or mahogany. The metal is likely an alloy, a mixture of steel. From where? Perhaps not far from Laura Bender's home in Bethlehem, Pennsylvania. Made by whom? By what workers, what kind of lives, through what union, with how much water and waste and at what cost?

We could do the same with the cereal or bagel you had for breakfast. The fresh tomatoes and other vegetables from the garden we've enjoyed recently take a short trip though no less significant; think about the toil, the sweat, the care, the people, the preparation, the love in getting those tomatoes to us (if all fully considered, you wouldn't waste a one and you'd give a daily hug to Joy McGrath and her dad and the students and staff and others responsible; perhaps easier from a can, but what a sacrifice of taste and health and energy and love). But we are slow to contemplate such things...the apple in our bag lunches, the one we sometimes neglect and trash, one from Seattle from the four-year-old tree that someone fertilized and weeded and watered and picked...then the fruit took the journey here. What a story that apple could tell.

We could continue on our journey below us past steel, through concrete into soil that is among the nation's richest, soil that we devalue, especially around here, by covering it with shopping centers and homes; what will our grandchildren and theirs think. Continuing on, we'd hit the world's most valuable natural resource, water. It flows in a river of rock, an aquifer which extends up to New York and down to the Outer Banks. Our well is one of the state's deepest at over 700 feet, drawing water up that took hundreds of years to get down. You brush your teeth in 1,000-year-old water. Savor it, swish it around and truly taste it...yes, a hint of iron, but so pure and vital. Much of the world's population would love to have our water; ask those that went to South Africa this summer or those that went to Honduras...our beloved Bob Colburn, covered in mud and sweat, having to haul water from a distance, as the locals must every day. Over a billion people, one sixth of the world's population, have inadequate water.

We could go deeper. In a mile or two, we'd hit hard rock, 500 million-year-old gneiss (hardened sandstone) and other metamorphic rock sloping from Wilmington and other parts of the piedmont northwest of here; you can see the rocks more easily there where the Brandywine River flows through revealing outcrops.

Now take another breath, a deep one. Like our water, some of those air molecules are a couple of thousand years old. Jesus breathed one of those same molecules; so did one of the world's oldest trees, the bristlecone pine. The molecules are mostly nitrogen, but, fortunately, some are oxygen, and, unfortunately, an increasing number are carbon dioxide, a product of fossil fuel burning, something we've done increasingly for the past 150 years. At over 380 ppm, the CO<sub>2</sub> concentration has never been higher, not for as far back in the ice we can look, nearly a half a million years ago. As Americans, we contribute five times as much CO<sub>2</sub> as other world citizens, and, currently, the world's natural systems only can absorb one third of the CO<sub>2</sub> emitted daily. The CO<sub>2</sub> gathers in what we call the greenhouse layer, a few miles up. Take a jog to it; you'd get there in 30 minutes or so, especially for you all that are in good shape. There, with methane and nitrous oxide (laughing gas) and other greenhouse gases, the greenhouse layer forms. It's been there for millions of years; without it, we'd freeze and life as we know it wouldn't exist. With it, the Earth's temperature averages 59 degrees Fahrenheit and sustains life like we know of nowhere else...at least 1.5 million species of bacteria and algae and fungi and plants and animals and perhaps 30 to 50 million more that we have yet to discover and describe.

The CO<sub>2</sub> correlates with temperature. It's risen about a degree over the past 100 years and estimates, even the most conservative ones, indicate at least a one to two degree rise over the next 100 years. Break out the bathing suits...maybe...but you may not have the beach or you may not recognize it. Think about what it means for the sea level, polar bears and other animals and plants, food production, weather patterns, for us, especially for one third of the world's six billion that lives along the coast. Think about those wrecked by Katrina. The sea level has risen more in the past 100 years than it did in the previous 1900; it continues to rise about an inch per decade. The polar bear populations and associated life decline; the bears have fewer stretches of ice from which to hunt their principal prey, ringed seal. Weather patterns have and will continue to change, becoming more unpredictable; dry areas likely will get drier, wet ones wetter. A warmer ocean fuels hurricanes increasing their intensity and duration and perhaps their number.

We could jog another few miles up, to the ozone layer where the sun's harmful ultraviolet rays are blocked. For the past few decades, however, molecules of CFC, a slightly reactive but allegedly benign compound formerly used in aerosols and air conditioners, are reacting with and decreasing the ozone, resulting in a diminished ozone layer meaning less protection and more rays and maybe heat for us down here.

We could jog on...through space and to a very likely encounter other life, perhaps more intelligent than our own.

Or we could just return to our seats and look beside us. Do you know this person? I mean truly know this person? Do you love this person? Perhaps you should? Your relatives. Your cousin sits beside you. DNA evidence tells us that we are 99.9 percent alike; differences among us, among racial and ethnic groups, are miniscule. As Gus says in *My Big Fat Greek Wedding*, "...in the

end, we are all fruit.” Even the millions of bacteria in your mouth or on your skin are related; we share about 50 percent of our DNA with the simplest of life forms...a jellyfish, a roundworm, a mushroom.

So consider the cousin beside you. Embrace him or her as such. Appreciate them. Love them. Play a game of chess with them. Go for a walk together. Find out more about them. Be curious, ever so curious...Poke and prod. Question and discuss. Make them describe every nuance, every smell, every sight and sound. You’ll be the richer for it.

So, you all, what we are considering is to better appreciate ourselves and this rich and intriguing natural world around us; in so doing, we’ll better take care of it and ourselves.

The need is great, if not urgent; as former Secretary of Interior Stewart Udall claimed forty years ago, we’re in the midst of a “quiet crisis.” Our numbers are great; it took us hundreds of years to get to three billion just after World War II, just 50 years to double that, to over 6 billion, and we’ll double that by 2050. Imagine twice as many people at this school, in this community, cramming into this room. Our consumption, more food, more cars, gas, roads, and homes, is greater than ever before; it’s tough to keep growing and consuming at such rates in this finite space we call Earth.

Just months ago, over 1,000 of the world’s leading scientists reported that,

*Over the past 50 years, humans have changed ecosystems more rapidly and extensively than in any comparable period of time in human history, largely to meet the growing demands for food, fresh water, timber, fiber, and fuel; this has resulted in a substantial and largely irreversible loss in the diversity of life on Earth.*

Noted biodiversity champion and Pulitzer Prize winner E.O. Wilson has written recently that today’s extinction rates, even the most conservative estimates, are 100 times faster now than when humans were not around. If the rates of habitat loss and extinction continue, by the end of this century, half of the plants and animals on earth will be gone.

At the end of the century, some of us won’t be here, but some of you will, especially because of some plant-derived fountain of youth. Imagine life then, diminished, less able to create air, cleanse water, to manage the soil...not forgetting the aesthetic loss and the contributions of biodiversity to us in terms of “...medicines, crops, timber, fibers, (dyes), soil-restoring vegetation, petroleum substitutes” [according to Wilson]. Fifty percent of our pharmaceuticals come from naturally occurring plants and animals. Imagine a world without aspirin from black willow which grows along the banks of the Pond, taxol from the yew shrub which grows around here and is used to treat breast cancer, hirudin from the Pond’s leeches to prevent blood clotting, alkaloids from periwinkle to treat Hodgkin’s Disease and leukemia.

So, what are the solutions or are we to follow the path of other notable civilizations like that of the Romans who, as Gibbon writes, contended with “a bloated and overextended military,

widespread economic and political corruption, addiction to and dependence on foreign resources, and prevailing public apathy and hedonism?” Some advise that the U.S. abdicate its

*“...superpower status and to help our transfer from superpower to ordinary nation, we could ask countries like India,*

*Egypt, or Mexico to start a First World Peace Corps. Its volunteers could teach us how to live more simply and how to*

*wash our clothes [by hand], and how to cook tasty meals of rice and beans [the most energy efficient diet]. Most*

*importantly, they would teach us when and how to take a siesta. [Wes Nisker, 2005].*

Others, like David Orr, a visionary thinker and professor at Oberlin, argue that we need to rethink what and how we teach. To teach about environmental problems is key to solving all others. Minus a few computers and a smattering of courses and programs, our curriculum today is much the same as it was in the fifties, he argues. The current crisis results from the well-educated, those who make unimaginably large sums of money, people impeccably groomed, educated at the best universities – male and female alike – eating fine foods and reading classy literature, while orchestrating the investment and legislation that ruin the world. And he continues that, instead of education to favor contributions to a global economy and upward mobility, the focus should be on that which heals the earth, building sustainable economies and good communities – ones that nurture and sustain us and all the supports us. “We need decent communities, good work to do, loving relationships, stable families, and a way to transcend our inherent self-centeredness. [Most importantly, today], our needs are of the spirit, yet our imagination and creativity are aimed at things.” [Orr writes].

So, Orr advocates, maybe we ought to focus our study on a river or pond. It is real, and to understand it, is to engage not only the intellect (using history, biology, chemistry, physics, English, language, economics, math) but our spirits, every part of our being, especially that which relates to the arts, faith, and our senses. How does the Pond smell, taste, feel, what’s its color, its mood, its beauty; we must observe it, canoe it, swim and play in it, fully experience it. In so doing, we’ll come to know it better, and take care of it.

Or, as Orr encourages, we could come to know our school communities better and contribute to them by understanding and contributing to how they operate. We could answer questions of impact as the percentage of CO<sub>2</sub> per student, the percentage of materials recycled, the percentage renewable energy consumed, the percentage of waste composted, the percentage of food served that was organically grown, water waste per student, the use of toxic materials, or the amount of solid waste per student. We could learn from those at the College of the Atlantic, where St. Andrew’s graduate, Molly Harrington ’02, and her classmates abide a zero-waste policy; there are no dumpsters at the College of the Atlantic. One question offered in our science department meeting the other day: does the biomass (that is, plants of the forests, fields, and Pond) of St. Andrew’s offset the carbon dioxide produced by us living here?

*To address environmental problems helps solve all others, ones of equity, security, and prosperity. Think about the repercussions*

*from energy conservation and use of alternative fuels. As Orr points out, energy conservation “reduces or eliminates oil*

*imports, lessens our dependence on oil from the Middle East or Venezuela, lessens our military presence in unstable regions,  
cuts our deficit, lowers the cost of energy, creates millions of jobs, minimizes oil spills and water pollution, reduces land  
degradation from strip mines, reduces air pollution, improves health and lowers medical expenses, removes the influence of  
the fossil energy companies on US politics, improves the health of our democracy, contributes to stabilizing our climate thereby  
enabling us to avoid a catastrophe, and improves our reputation and standing in the community of nations.”*

All from recycling an aluminum can. Think about it...to recycle a can saves money (we make several hundred dollars every year when we redeem ours in Dover), energy (eight times as much), lessens pollution, and promotes world peace.

So what will you do, what do I need to do, what do we all need to do?

The possibilities are endless. We could ask Jane Goodall, who courageously and tirelessly campaigns for chimps and other animals and their habitats. Or Jimmy Carter, who, through The Carter Center and Habitat for Humanity (an organization through which Alex and some of you have worked), helps build communities and ensures the rights of people. Or ask William McDonough, ecoarchitect and Time magazine hero of the year about crafting buildings, furniture and Nike shoes, with no waste, as nature does, that is, waste as food. Among other models from nature, he references ants for his designs. As he explains,

*“All the ants on the planet, taken together, have a biomass greater than that of humans. Ants have been incredibly industrious  
for millions of years. Yet their productivity nourishes plants, animals, and soil. Human industry has been in full swing for little  
more than a century, yet it has brought about a decline in almost every ecosystem on the planet. Nature doesn’t have a design  
problem, people do.”*

Read his books. Ask John Austin about him or listen to McDonough online. Read Rachel Carson’s biography about a courageous woman who persisted with her message that DDT is harmful to all in the food chain, not just mosquitoes, and, ultimately, to us – especially those of us alive during the 50s and 60s before DDT was outlawed in the U.S.; I, as with some of us, likely have DDT in some of my fat cells, where introduced chemicals typically collect. Imagine her battle with the chemical industry; the science was ignored, and the industry tried everything to discredit her.

Sound familiar? Consider today’s disinformation campaign mounted by the media and oil companies. There are nearly 1,000 articles published in peer-reviewed, technical articles dealing with climate change, and not one of the articles casts doubt as to the cause of global warming; of those published in the nation’s leading newspapers, over 50 percent casts doubt...no wonder we’re often confused.

Ask other students from other schools. At Westtown, they've had an organic garden and other environmental efforts for years. At Exeter, environmental stewards host parties for corridors that recycle the most. At Hotchkiss, the wind supplies some of the school's energy needs. At St. Anne's, a history and science teacher are preparing an environmental studies unit for the spring. These initiatives save money, encourage interest in admissions and from donors, and most importantly, encourage us to appreciate that all things, near and far, are connected. So what will we do?

- Will we ask our teachers to teach together, to read from Annie Dillard, Diane Ackerman, Aldo Leopold, Wendell Berry, Wallace Stegner, Michael Pollan, Jane Goodall, Andrew Goldsworthy, Emerson, Thoreau, MacArthur genius grant recipients Paul Ehrlich and Wes Jackson?
- Will we take walks on the trails around the pond and explore our 2,000 plus acres which provide an arena for the curious?
- Will we go sailing and canoeing?
- Will we grab a helmet and bike to the Acme and limit when we ask for a lift?
- Will we go, in a few weeks, and paddle down the Brandywine, or to camp and hike around Hawk Mountain...or camp around here as students have done with the Duffy's, O'Connell-Kerrane's?
- Will we hike the Appalachian Trail as Katie and others have done, living outdoors, very simply, lots of exercise and fresh air? Hiking the AT is among the best, most fulfilling experiences I've had in my life.
- Will we take the most efficient form of mass transportation, a train, instead of flying home?
- Will we carpool?
- Will we turn off lights and stereo and fan when we leave the room, remembering those repercussions of energy conservation?
- Will you stand atop our trash at the Cherry Island Landfill as Kim Klecan did several weeks ago, and contemplate its enormity and our rates of consumption.

So what will we do? What choices will we make? We'll know what we're on the right track:

- When students like Andrew and Penn make announcements or send e-mails asking us to clean up the front lawn;
- When we join an Outward Bound or Moondance or NOLS outdoor experience as Wilson, Marina, Matthew, Doug and others have done;
- When students venture out on their own as Ford, Andrew, Peter, Tyler, Sarah Ann, Mary, and Peanut often do;
- When we plant trees and help in the orchard as the Kennedys and others have done;
- When dining tables are cleaned voluntarily as Tommy and others have done;



- When students want to be outside, on the trails, in the creek, on the Pond instead of on their computer or watching TV;
- When we offer to chip in when someone's picking up trash or checking the recycle bins on weekends;
- When teams take a practice and go to Andrew's Place, or clean the roadsides or work in the organic garden, times and places where people slow down and talk and share and enjoy each other's company;
- When students take an interest in the quality of food from the dining hall, whether it is locally or organically grown;
- When there is not an aluminum can in the trash, and the dumpsters have only trash, and not much at that;
- When student rooms have more room and less stuff, especially at the year's end'
- When everyone is conscious of energy conservation, as displayed by closing windows in the winter and turning off the lights when the room is unoccupied;
- When students question which school vehicle to take, less based on comfort than gas mileage;
- When all cleaning products used by the staff are biodegradable;
- When students encourage the grounds crew and farmers to use treatments with the health of the land and water more in mind;
- When students question the school's investments, its endowment funds, as to their social responsibility;
- When members from disparate parts of our community support our environmental stewards and contribute to efforts like those to change practices at Walmart...like those to encourage biodegradable and environmentally sensitive soaps and papers and clothes in the school store...like those that cause us to think about the cost, the total cost, social and otherwise, of items and practices like our tablecloths, our paper, our catalogs, and other publications.
- When all of us want to participate in our annual celebration of Earth Day in April, and do so;
- When you all graduate, you'll be full of an environmental ethic and go into the world wanting to help it, as passionate and curious ecomusicians, ecoChristians, ecoagnostics, as ecomathematicians, ecoEnglish and foreign language scholars, ecohistorians, ecoscientists, and so on...all full of an awareness and appreciation of the natural world, one that we belong to, that we depend on, that we're responsible for.

And keep in mind that hug, for yourself, for the cousin beside you, and maybe even a tree.

